AFRICAN VIEWS ON FOOD SECURITY AND SELF-SUFFICIENCY

HEARING

BEFORE THE

SELECT COMMITTEE ON HUNGER HOUSE OF REPRESENTATIVES

NINETY-NINTH CONGRESS

SECOND SESSION

HEARING HELD IN WASHINGTON, DC, SEPTEMBER 17, 1986
(VIA SATELLITE HOOKUP IN LAGOS, NIGERIA)

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AFRICAN VIEWS ON FOOD SECURITY AND SELF-SUFFICIENCY

WEDNESDAY, SEPTEMBER 17, 1986

HOUSE OF REPRESENTATIVES,
SELECT COMMITTEE ON HUNGER,
Washington, DC.

The select committee met, pursuant to order, at 9 a.m., in room 210, Cannon House Office Building, Hon. Mickey Leland (chairman of the select committee) presiding.

Members present: Representatives Daschle, Dorgan, Morrison, Gilman, Evans, and Bereuter.

OPENING STATEMENT OF HON. MICKEY LELAND, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Chairman LELAND. Good morning. This hearing will please come to order.

I am Congressman Mickey Leland, chairman of the House Select Committee on Hunger. I would like to welcome the witnesses to this historic event—the first congressional dialog with Africa on African food security and self-sufficiency. The African specialists before the committee today are in Lagos, Nigeria, and come to us through a satellite hookup arranged by the U.S. Information Agency. This hearing is being held to complement our April 17 hearing this year at which various experts testified on family food production. The witnesses have seen a videotape of that hearing and are thus familiar with the issues discussed and the suggestions made by the American experts.

The witnesses at our April hearing, John Kenneth Galbraith, economist and diplomat; Leonard Robinson, president of the African Development Foundation; John Sewell, president of the Overseas Development Council; and Phyllis Windle, project director of the Office of Technology Assessment, brought up important issues related to family food production in Africa. They stressed the importance of pricing policies and Government spending in increasing food production; the vital role of local research facilities in developing appropriate agricultural technologies; and, the need for improving the role of women in the agriculture training and marketing process.

We now have the opportunity to discuss these issues with experts involved with food production in Nigeria. Their insight into this matter will give us a much more comprehensive understanding of food production in Africa. We are very fortunate to have this opportunity. I hope that this hearing will open the way for increased

dialog between Africans and Americans working on the same objectives.

The views of our African witnesses on U.S. development assistance deserve particular attention as the funding available for development assistance becomes increasingly restricted. It is now all the more important that we spend our foreign aid funds in the most effective and constructive ways possible. Our witnesses today have seen the effects of U.S. aid programs firsthand. I will be especially interested to hear their thoughts and recommendations for how the U.S. Congress can better direct U.S. assistance programs to improve food production in Africa. These recommendations deserve our serious attention because if our assistance programs are to succeed, they must be based on the input and the support of the recipients.

Before we turn to our witnesses, I would like to introduce my colleagues who are here with me today. The first colleague I would like to introduce is Mr. Cooper Evans, from Iowa. We appreciate his participation today. I would also like to introduce the gentleman from New York, Mr. Gilman, and the gentleman from North Dakota, Mr. Dorgan.

Let me now yield to any one of my colleagues who might have an opening statement. Mr. Gilman.

OPENING STATEMENT OF HON. BENJAMIN A. GILMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. GILMAN. Thank you, Mr. Chairman, and first of all, I would like to commend our distinguished chairman, the gentleman from Texas, Mr. Leland, for arranging this historic hearing with our distinguished participants from several African nations through the assistance of USIA's World Net. This is indeed, an example, of the use of some of our more modern technology for development purposes while seeking direct input from the affected nations themselves.

Incidentally, the buzzers you hear are the opening of the official business of the day in the Congress. Our bells start ringing at about this time every day.

Those witnesses with whom we will be participating today in this conference represent their countrymen and women who must be heard from before any—and we would like to underscore any—development projects are undertaken. I think that is a sound approach because it has always been this committee's position that in order to resolve the hunger problems of Africa, we must weigh in heavily the analysis and solutions that the Africans themselves propose.

In concluding my brief opening remarks, permit me to note the remarks of Kenneth Kaunda, the President of Zambia, when he said.

> I believe that the universe is basically good in that throughout it great forces are at work striving to bring about a greater unity of all living things, and it is through cooperation with these forces that man will achieve all of which he is capable. Those people who are dependent upon and live in closest relationship with nature are most conscious of the operation of these forces. They may be simple and unlettered people, and their physical horizons limited, yet I believe that they inhabit a larger world than the sophisticated westerner who has magnified his physical senses through invented gadgets * * *

And I hope that we bear in mind those wise words of the good President.

Thank you, Mr. Chairman.

Chairman LELAND. The gentleman from North Dakota.

OPENING STATEMENT OF HON. BYRON L. DORGAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NORTH DAKOTA

Mr. DORGAN. Thank you, Mr. Chairman. I'll be brief because I do want to hear those who are going to be witnesses on the program today, but I want to tell you how much I appreciate the ability to participate in this historic hearing linking us with our distinguished guests from Lagos, Nigeria.

The subject of world hunger and world food production is a subject that is very important to all of us in this world. Hunger is one of the most wrenching problems in the world today, and I think it appropriate for us to be able to, in this kind of forum, exchange ideas and develop the capacity to work together on this very important issue. I want to thank you for the opportunity to participate in the hearing.

Chairman LELAND. Let me inform our friends in Nigeria that more Members of Congress will be coming later on in our discussions to participate today. I would now like to welcome the three witnesses from Lagos, Nigeria: Lt. Gen. A.I. Akinrinade, Dr. Bede Okigbo, and Ms. M. Atoke Feyisayo. I hope I have pronounced the names correctly. If not, please correct me.

The first witness will be Lt. Gen. A.I. Akinrinade, the Minister of Agriculture, Water Resources and Rural Development of Nigeria. Minister Akinrinade has held many significant posts in the Nigerian military and received some of his education at the U.S. Army School at Fort Benning, GA. His presence in this hearing on food production is especially valuable, because along with his significant position in the Nigerian Government, he is also a practicing farmer.

The second witness today will be Dr. Bede Okigbo, the Deputy Director General of the International Institute of Tropical Agriculture in Nigeria. Dr. Okigbo's experience in the field of agriculture production is extensive, including his work as the director of farming systems in Nigeria and dean of the faculty of agriculture at the University of Nigeria. His knowledge of new technologies in agriculture will be particularly valuable for today's hearing.

Our third, but not the least of our witnesses, will be Ms. M. Atoke Feyisayo. Ms. Feyisayo is the chairperson of the Oyo State Council for Women and Development in Nigeria. She has held significant posts in the Nigeria Union of Journalists and the National Council of Women's Societies. We are all aware of the importance of women to any development efforts, and I look forward to hearing from Ms. Feyisayo about the role women are playing in development in Nigeria.

Let me now ask for our first witness, Mr. Akinrinade, to present his statement. Mr. Akinrinade.

STATEMENT OF LT. GEN. A.I. AKINRINADE, MINISTER OF AGRICULTURE, WATER RESOURCES AND RURAL DEVELOPMENT, NIGERIA

General AKINRINADE. Thank you very much, Representative Leland and the other members of the House Select Committee on Hunger. As you heard, I am a retired army general and presently am a practicing farmer, and for the past 12 months, I have been the Minister for Agriculture, Water Resources, and Rural Development for Nigeria.

Let me say how delighted I am to participate in this program. I think it is a very good opportunity which fosters the opportunity to put our case to you and also for us to discuss very frankly the difficulties that agricultural production have for food production in Nigeria.

I will make a few passing remarks before I make any suggestions at all to the committee. The African countries have brought agriculture to the forefront of the economic activity. More resources have been devoted to agriculture generally throughout Africa, but that is not to say that is enough. Obviously, we have a long way to go to get to the levels which have been prescribed by the Harayda, the Clarissen, which says we must put 30 percent of our gross national product into agriculture production if we hope to be able to produce enough food for our people. We are still a long way from that.

I want to make also the point that we always need more food than we can produce, especially to maintain the nutritional levels and also to have the calorie intake of our people to the required level which is prescribed by the international bodies. Therefore, we cannot by any chance take ourselves out of the normal world food trade. I want to be sure that you understand this.

I am so certain, also, that some areas where you can assist us are very obvious. You have in the past deployed a lot of agencies in the field who have done very good work with most of our communities, and some of them have just begun to reap fruit when you decided not to go on with such programs. I think this time around we should get the matter straight so that when we start the program, we have to see it to its logical conclusion.

Let me make some suggestions in some of the areas where I think agriculture needs a lot of push and where you can assist us most effectively. The first one is institutional building, especially in research, in training and in special services. The second one is the development of infrastructural facilities, particularly roads. It is most important for communication, for able distribution and for marketing of all the productions from outer areas.

The third one is soil conservation and the water resources development. It is most urgent for us in the dry areas, and particularly in the Sahelian region, the control of pests and especially those that devastate crops and livestock in most of the regions of Africa. You must have to assist us with the proper ability for food and crop production, for livestock production, for fish farming and post-harvest distribution and processing.

Mr. Chairman, let me enter this introduction, by making just some suggestions on how you can assist agriculture in more practi-

cal terms. I think you can assist some of the countries who lack foreign exchange in the procurement of agricultural input. I am talking now of fertilizers, of chemical pesticides, veterinary drugs and things like that, to be able to do so. This is a most effective way of getting input to some of these countries.

We have to utilize a bit more the question of food transactions. I am talking of countries like Zimbabwe, people at Tanzania, who have excess grains in their hands, and they are not able to preserve them, and they know that you are also supplying this kind of materials to other countries in Africa who need them, and you might be able to help them to pick up some foreign exchange available to them.

We have to intervene a little more in the debt service and payment terms of all these countries. They are so much in debt that it is impossible for them to muster the available resources for agriculture, and we have to also find a way of intervening in having the times which African countries now face to be a bit more favorable.

Right now we are just a price-taker, not only for your product development, which you give to us as input, but also producing which we ourselves produce as family products for your industries. I think we have to balance up this type of trade and give us a little more remuneration for what we do. I think you can assist us most importantly in research, in training, and by funding of those agencies which are responsible for funding—for refunding our research institutes on a national level and original level, and I think anything short of a massive support for this is almost impossible to have any big bang for your dollar.

I just attempted to cover very briefly some of the areas which I think may provoke some discussion later on in this program. I thank you very much, Congressman.

Chairman LELAND. Thank you, Mr. Minister.

Let me now yield to Dr. Okigbo for his opening remarks. Dr. Okigbo.

STATEMENT OF BEDE OKIGBO, DEPUTY DIRECTOR GENERAL, INTERNATIONAL INSTITUTE OF TROPICAL AGRICULTURE, IBADAN IITA

Mr. OKIGBO. Thank you, Mr. Leland and your colleagues. I would like to first of all express my appreciation for being given this opportunity to extend my ideas with you, ideas which I think may contribute, to some extent, to all your attempts in assisting the developing countries of Africa to solve their food and population problems.

I would like to, first of all, emphasize that in thinking of the African food crisis and agriculture development, one has to realize the immensity of the task that is involved when we view this as a component of overall economic development for all those countries that are facing the more graphic crisis—ecological crisis with respect to problems of environmental deterioration, then the problem of political crisis with respect to the fact that while development is a long-term task, African countries are continuously facing the problems of instability in political organizations, and, therefore, it

makes it difficult for them to insure consistency in policies, plans, and strategies.

Another thing which one must emphasize is that in Africa the more graphic crisis is not only related to rapid population growth, it is also related to the problem of rapid organization which demands not only the increased food production, but also making the food available to other masses and therefore for service technologies such as processing and overall handling and distribution are very important.

The second point one has to emphasize is that if we are thinking of African agriculture development and food production, we must always bear in mind the diversity of African environments that are to be addressed; second, the diversity of commodities that are good, many of which have not been involved in any of the world's green revolutions, but also we have to emphasize the fact that you have varying historical, colonial backgrounds, and ideologies which affect the way we may look at the strategies and plans for increasing food production.

Third, one has to emphasize that African agriculture is strictly an upland agriculture production system, or like the Asian production system where rice is a dominant crop, and, therefore, when we would bear in mind that Africa has about 50 to 57 percent of its land as dry savanna areas that require irrigation while Africa is only irrigating only 4 percent of the world's irrigated areas then were to face the task of how to get African countries to utilize this irrigation potential.

Again, I think related to this is the fact that African agriculture is very complex, not only with respect to production systems, but also that the farmer is managing different crops and livestock at the same time, and with exception of the madi cadas, the range of commodities it produces are in that such as tribal subsistence and also increasing cash requirements, and therefore, this complexity has to be addressed in research and development.

Fortunately, I think that agriculture production is, by its nature, location specific. Therefore, all attempts in the past to horizontally transfer technologies from the temperate countries, or from one part of the world to another which have overlooked this location specificity of agriculture must be taken into account in the experience that will require in order to develop technologies and production systems that are finely tuned to the farmers needs and circumstances in Africa.

My friend, General Akinrinade, has already mentioned the problem of infrastructure deficiencies. Here as a research man one has to emphasize the fact that a lot of the agricultural research organizations that were planned and started during the colonial era have broken down, and therefore, you find weaknesses in organization and management of the research system which is supposed to backstop all agricultural development processes. Therefore, one area where you might be able to help us is assisting African countries develop capabilities in research and development through training of the right type.

Then another point that I think one has to emphasize here is the fact that all African countries are committed through the Lagos plan of action to achieving food service sufficiency. They have also

stated so in the United Nations. I think that what is important is that through dialog and interaction with them, it is necessary to insure that this commitment that is made on paper is realized in allocation of resources, and then I think that one has to emphasize the fact also that African countries are facing huge debts much more than in the past, and therefore may not be able to afford the financial resources and capital required in agricultural development projects.

I think these few points I've made from a suitable background we may use for our discussion in this exercise. Thank you.

Chairman LELAND. Doctor, thank you very much.

Let me now yield to Ms. Feyisayo for her opening statment.

STATEMENT OF M. ATOKE FEYISAYO, CHAIRPERSON, OYO STATE COUNCIL FOR WOMEN AND DEVELOPMENT

Ms. FEYISAYO. Thank you very much, Mr. Chairman and members of the committee for this opportunity given to women, perhaps for the first time, to contribute in a modest way to a discussion on food production in Africa. As we all know, women produce more than 70 percent of Africa's food, but unfortunately, women are neglected and perhaps forgotten at the initial stage of planning, as well as at the end result, too.

I find that if agricultural production in Africa is to be stepped up, then there is need to take into account women and their contribution to farming and to the entire development effort. I think we need to reappraise women's contributions in this regard. As we know, women do the weeding, the sowing of seed, the harvesting, the processing, as well as the marketing of food stuffs, but they do this in a most critical system.

It is very difficult for women to have access to mechanized farming as men do, and for this reason they have to go through the process of bend back, you know, a hazardous system of farming. I think women need to be considered when it comes to a question of mechanized farming so that they, too, can get out of the drudgery of farming and be able to increase their output.

Second, I think that women ought to be considered first when it comes to inputs for farming. Right now where they are considered at all, the input comes at a very late stage where it is difficult for women to really utilize it to any effective advantage. Another point is that the cost of fertilizers and chemicals, herbicides, and insecticides and all are so much beyond the financial reach of women, and I think that some kind of financial assistance ought to be given to women to step up their productive capacity.

Again, where this production is successfully carried out, we find that the question of courage and transportation or evacuation of this farm produce to the stores are not easy at all for women because transportation is not easy to come by. So some kind of technology which will make farm produce evacuation easier for women is to be given serious consideration.

We need effective storage. We need better knowledge of processing our food stuffs, and we need to have facilities for preservation of our food crops. As I said earlier, credit facilities for women would help a great deal in getting them to produce more than they

are doing at the moment, because they will be in a position to purchase those things which they need to make farming easier and more productive for them.

I want also to touch on training of local farmers. From experience one finds that local farmers are neglected to some extent and not given the necessary training to aid their output. Mr. Leland and members of the committee, maybe at a later stage, I will be in the position to say more than this, but I want to thank you very much indeed for the opportunity offered me to participate in this program. Thank you very much.

Chairman LELAND. Thank you very much.

Let me now engage our witnesses with questions and ask my colleagues to join in also. First, let me ask all of you, having viewed the videotape of our hearing in April of this year, you are aware of many of the points which were discussed.

In your opinion, what were the most important points made during the hearing? Also, with what views expressed in the hearing did you disagree? You may proceed in any order in which you so choose.

General AKINRINADE. Congressman Leland, I had a look at the transcript and the video which you sent over to us very kindly, and I think one of the major things was the recognition that in the past effort had been made by bilateral agencies which the American Government had sponsored or volunteer agencies had sponsored, and yet the question of putting into account what you found are the traditional, cultural aspects of agriculture into your contribution and whatever you bring into the country I think was a very salutary recognition of a reason why aid was not very effective.

I think over the years all the agencies have learned very much by doing this, and I don't think this problem now exists. I think this is one of the major things that struck me, and of course, you also recognize the problem of research, the home-base research, ecological-based research, and the impetus which has not been generated by research which could have made agriculture a bit more productive. I am talking in terms of producing better seed crops—drought resistant, disease resistant, and that kind of thing. This was absolutely recognized in the transcript that I read, and while this is most important, I'm sure Dr. Okigbo will have much better ideas about that.

Mr. OKIGBO. Well, Mr. Leland, one of the most important aspects of the discussions that went on which we saw on the video is the fact that it is recognized that traditional African agriculture have definite advantages and disadvantages just as you have modern agriculture productions systems. Therefore, it is necessary for us in all of our research and development to try to integrate the compatible aspects of those researches that have been done to insure that we are able to develop appropriate technologies that are economically sound, ecologically acceptable, while at the same time being culturally acceptable with minimum deterioration or adverse effect on the environment.

I think another aspect of the discussion that went on is the fact that although finding alternatives to traditional or outmoded agriculture production systems and their accompanying technologies appear to be intractable, advances are being made both at the

international and national levels, and therefore, it is necessary for us to insure that there is a continuity and also there are mechanisms for linking research extension and the farmer for maximum advance to be made.

And, third, then I think one aspect of water was mentioned there, and what has become quite clear is that the American legislators are interested in insuring that the aid they give to African countries are utilized in the most cost-effective manner, not merely through what they determine to be the major objectives and strategies, but through dialog and consultation and discussion with African countries who are the recipients of the aid.

I think these are major aspects of the discussion that I think will profit us even in further discussion today. Thank you, again.

Chairman LELAND. Ms. Feyisayo.

Ms. FEYISAYO. Well, I would say that we need to involve even farmers more in both processing and utilization of foods. It is one thing to have these new varieties and things given to them, but if they know how to process and utilize, this is going to improve their nutrition and health, and I would want to see countries aiding agriculture give more attention to involvement of farmers for the processing and utilization of food crops to improve their nutrition and health.

Furthermore, as Dr. Okigbo has mentioned the question of extension workers reaching and giving the necessary assistance to farmers is important, and in this area one seems to see that there is underutilization of many of these extension workers due to lack of the necessary facilities for them to function effectively. Such a lack of facilities will need to be looked into, and the necessary facilities made available for them to be able to function effectively.

For example, the home economist—when we are talking of nutrition and health—the home economist in Africa number over 35,000, and Nigeria alone has about 5,000 of this. I mean this is a great number indeed. If they are well utilized, one will get more and food production would increase.

Chairman LELAND. Thank you very much.

Let me now yield to my colleagues. Mr. Evans, the gentleman from Iowa.

Mr. EVANS. Thank you, Mr. Chairman. Having visited the International Institute of Tropical Agriculture at a point several years ago, I am going to focus on that for just a moment or two. In the early days of that institution, it is my impression that it focused to a great extent on what I will describe as pure research, and I am under the impression that in recent years, it is focusing more on getting the results of that research out into the field and attempting to in more, shall I say practical means, increase the movement of that information to the traditional farmers.

I would like to know if that impression is essentially correct and to what extent it is being successful, and I guess that question is best addressed to Dr. Okigbo.

Mr. OKIGBO. Well, thank you for that question. I think that one has to bear in mind that when IIT started, it was quite obvious that in many developing countries in Africa much more emphasis were given to cash crops and nonfood crops in the early days, and therefore, when the International Institute of Tropical Agriculture

started, there was a lot of basic research that was needed to support applied research, and I think IIT has done quite a lot of that, not only with respect to the problem of studying the African environment and soils, but also in studying the climate and the overall constraints that are involved in increasing agriculture production, and a lot of progress has been made in those efforts.

Having made those efforts—and, I think that the institute has directed itself to crop improvement. It is very important that we bear in mind that such crops as cassava and sweet potatoes or yams that are being addressed by IIT were not involved in the Asian Green Revolution, but I must emphasize that even from the early beginnings of the institute, a lot of progress was made in producing cassava varieties to combat the cassava disease, the cassava bacteria blight, and more essentially the cassava mealy bug and green spider mite.

I also think it takes quite a lot of time to change production systems, and the institute has done a lot of work on competent technologies that go into bringing about the improvement of farm assistance to develop what we now call alley cropping which Dr. Windle addressed earlier in some detail in the video that we saw. But I think that one aspect of IIT's research that has to be emphasized with respect to getting technologies to the farmer is the application of farm assistance research methodology to IIT's work and also its training programs and special programs with national programs.

The other farm assistance research approach emphasizes and are studying the farmer's overall environment, his production systems, his constraints to increasing agriculture production as a basis for designing technologies that are more appropriate and relevant to his needs and circumstances, and also farm assistance research approach involves an on-farm research component whereby these technologies are developed at the research station. Both authority and the national programs are then tested at the farmer's level with the farmer's involvement so that we are able to find out how to modify these technologies and also supply feedback to all station scientists.

I think in this regard IIT is now making progress in not only developing appropriate technologies that are economically sound and ecologically also suited to the African condition, but are also quite culturally acceptable.

Mr. EVANS. I would address this question to the Minister of Agriculture. I think in the past that our assistance programs, and I think to a great extent your efforts have focused on production rather than what we do postharvest, and my question is do you think perhaps at this point in time some of our assistance programs would be more productive if they did focus on how one stores and distributes and transports and preserves crops after harvest rather than an almost total focus on how we increase production in the African nations.

General AKINRINADE. Congressman, thank you very much. I think you are very correct in the kind of emphasis that we must not put on the question of storage, processing, and perhaps conversion into more usable forms some of our products. If I can give example, up to about now in Nigeria there is about 40 percent of

what we produce in the field that is lost either to pests or to bad processing, inability to transport those things to the right places, and this is a terrible waste in the system. So it is not normally that not enough is produced, but not enough gets to the people, so I think in the next round, if you are really bent on helping, it would be very nice to focus a lot of attention on processing, on the question of storage.

On the government side this has been addressed, and I think this has been addressed by quite a number of countries in Africa to try to save as much of the things that they produce on their farm. But let me make one point about the first question you asked. I think one problem that we had and which has been clearly brought up to us, even by your transcript, is that women who produce or take so much part in production, in agriculture, are so neglected when it comes to the question of extension work. The man who is an extension worker does not want to address himself to the women, and most of the work is done by the women.

The administration clearly has to take account of this and we will have to involve women much more in the training programs that we have. Right now we have a program with the FAO, and it is going to be principally how to bring women into agricultural education much more and to give them supervisory kinds of jobs in agriculture so they can talk to the women and get more production out of them. Thank you very much.

Mr. EVANS. Thank you, Mr. Chairman.

Chairman LELAND. Let me now yield to the gentleman from North Dakota, Mr. Dorgan.

Mr. DORGAN. Thank you, Mr. Chairman. Perhaps this question might best be answered by Minister Akinrinade or Mr. Okigbo, but any of you might take it.

I would like for you to summarize for me, if you can, what are major barriers to increasing food production on the continent of Africa? Now, I know that you have talked about a number of problems, but if you were to rank those problems or rank those barriers to increasing food production, how would they rank? Would you just give me a brief description of how you would rank those barriers?

General AKINRINADE. I think the first thing is our problem of input. Most African countries, mine included, have several difficulties in getting the right input even when we recognize what we are supposed to get. We usually get all the chemical fertilizers, pesticides, and insecticides. All this is necessary for production, including the machinery which we use for production. We have to take this and pay for them. The problem of our inability to generate enough funds to do this is seriously a very big handicap for agricultural production.

I think the problem of research has been adequately covered, and I think it is almost equal to the question of input. Anything that we do without adequate research and applied research and a good extension service attached to it is absolutely useless. One thing we tried not to do is to put even more areas into cultivation. What we already have is not producing to the maximum for the lack of input and proper research. So it is much better for us to address

these two problems, first of all, and make sure they are properly resolved. Thank you.

Mr. DORGAN. Mr. Minister, I thank you for that.

Let me just ask one other brief question of Mrs. Feyisayo. Is there any specific type of agriculture that donor states should be encouraging with respect to supporting women in agricultural development in Africa?

Ms. FEYISAYO. Thank you very much. Yes, there are. Apart from food crops, I think we need also to encourage women to raise cattle. Women in Africa are lovers of cattle, and they do rear these in their backyards, and I believe you would be sending aid in the right direction if you help them to step this up so that they can have a larger herd than they are coping with right now.

Again, I believe that in poultry production women can do very well. They are doing very well. Most poultry farmers now are women, and any assistance given in this direction would be worthwhile. Apart from that, I believe also that fish farming is something that ought to be encouraged in Africa. That also would help a lot to improve nutrition and health. So I believe these three areas ought to be considered.

If I may go a little further, I want to recognize here the assistance that IIT has given in the field of food production especially utilization of foods, and we have discovered that through their assistance, as well as that of the rural development division of the Federal Ministry of Agriculture full utilization has become an incentive for cooperative efforts of the community. Thank you very much.

Chairman LELAND. Let me now yield to the gentleman from New York, Mr. Gilman.

Mr. GILMAN. Thank you, Mr. Chairman, and I would like to address this to all of the panelists. It has come to our attention that when credit is made available to farmers, or other small-scale producers, these individuals can greatly increase their output. However, it is too often the case that many of the financial institutions in the developing nations do not make loans to small enterprises due to their lack of collateral.

I have introduced a measure in the Congress which would set-aside certain funds out of our AID programs to provide credit to small-scale producers. In your opinion, do the Nigerian farmers currently have reasonable access to credit, and do you feel that increasing access to credit for the small farmers would be helpful? Any of the panelists, please don't hesitate to respond.

General AKINRINADE. Yes. The question of credit to the small farmer is always uppermost in our minds, but it is just not enough. We have tried to arrange with our own special banks, the agricultural bank. We tried to use the commercial banks. We tried to use the merchant banks, and they would try to have some form of assisted programs for getting small loans to small farmers adequate enough for the ones in production. But the percentage, I think, of beneficiaries is probably less than 10 percent of the people who ought to have this.

I think it is a bit difficult for you to make available the kind of funds that could make a big dent in the agricultural sector, in this root of small-scale agriculture, but there is a necessity, first of all,

to introduce into the system such technology that are so basic, easy to understand and for men and women to be able to use it on small-scale farms. This could be available in America, and part of the agencies could possibly implement it into Nigeria and promote whatever modification is available to produce this within the country and then make it available to the farmers.

Perhaps the prices would be easy for them to cope with, and then perhaps our credit facility would be able to in fact focus on this kind of equipment. I think perhaps on this road we could do a lot of work.

Mr. GILMAN. Minister, is there actually a program in Nigeria today for small loans at reasonable rates for the small farmers? Is there a national program in place?

General AKINRINADE. I beg your pardon?

Mr. GILMAN. Is there today a program in place to provide small loans at very reasonable terms to the small farmer?

General AKINRINADE. Yes, there is, Congressman. We do have a loan package which is run under the Central Bank of Nigeria to be able to give about $5,000, which is about what is required for a very small farmer who farms on, say, 3 hectares of land. The rate of interest is special. It is subsidized by government, and it is partially enforced on the banks to make available a certain percentage of their portfolio for this kind of lending.

It has just started, and we are going to wait and see it over one or two seasons and see how much help this can give to the farmer.

Mr. GILMAN. I'd like to ask Mrs. Feyisayo—she mentioned that credit should be made available to the women farmers. Is there any program now to make available such credit for women farmers? We found in many other countries that there isn't any program of that nature, and we would like to see more programs of that nature developed.

Ms. FEYISAYO. Yes, one would like to see such programs intensified. I wouldn't say that there is no such program now because, as the Minister has just said, this is supposed to be an open thing to both men and women farmers. But unfortunately the world over women are looked down upon, and their contribution is not appreciated enough. For this reason, women always have an uphill task being recognized, let alone considered for such loans. You have to work twice as hard if not more.

Mr. GILMAN. Are the loans available if there is no collateral available? If the women don't have any land, for example, will the banks give them a small loan for farming?

Ms. FEYISAYO. Yes, the bank would give them a loan, but as I said, it is not going to be easy, and the loan is not going to be a fat one either. It is going to be a very small one if there is no collateral.

Mr. GILMAN. I would hope that together we might be able to develop a more effective program in that direction. I think it is something that is needed in many of our developing nations today, and we would welcome any comments you might have in the future with regard to how we can best develop that kind of an effective program not only to help the women, but to help all small entrepreneurs.

Thank you, Mr. Chairman.

Chairman LELAND. I thank the gentleman from New York.

Let me now yield to the gentleman from South Dakota, Mr. Daschle.

Mr. DASCHLE. Thank you, Mr. Chairman. I would like to address my first question to General Akinrinade. I would be interested in knowing first, how you would rate the effectiveness of the programs provided through the United States; how they could be improved, second; and how they compare to programs provided by other countries also interested in helping?

General AKINRINADE. Most of the programs that we have are merely from the multilateral agencies. I am talking in terms of FAO, UNDP and World Bank and the like. In the past there have been bilateral agencies like the USAID who did a part in programs in Nigeria. I remember in the sixties you did have that, and a lot of dams were constructed in the western part of Nigeria at the time, and all these dams today are still functional, but the problem was as soon as we had some oil, I think you decided that it wasn't necessary for you to continue to assist us. This is why I think the AID school in Nigeria in agriculture virtually petered out. I believe we still enjoy some of your generosity through the big organizations like SGIA, IITA, the Ford Foundation, and people like that who do subscribe to these organizations. But I think that's a lot of scope, like Mrs. Feyisayo said, to start programs which could be very beneficial especially to the smaller scale farmer.

The large-scale farmer has a better opportunity to interact with his American counterpart. He has joint venture possibilities, and he could do any program that he wishes in Nigeria. If he so wishes, he will get adequate backing from some of your private business in agriculture but not the small-scale farmer. But as we concentrate more on these smaller scale farmers both in adequate crop, in poultry, in the herd, we would get more handy in that direction.

Mr. DASCHLE. Let me clarify a part of the question that I would like to address once more. Do you receive bilateral agricultural assistance from other countries, or is all of the assistance you receive provided through the multilateral agencies?

General AKINRINADE. They are mainly through the multilateral agencies, Congressman. We hardly have bilateral agencies. We do have one or two projects which are funded and backed by the technology and funds with some countries. An example is a big irrigation scheme in the eastern part of the country which is using direct pumping from the lake, and is going to do about 15,000 hectares of land for rice. This is backed by the Japanese Government, by technology and financing. This foreign financing is done by them.

This kind of area is well, well open to all countries who wish to assist us, but there is not a lot of countries who are doing that right now.

Mr. DASCHLE. If I could pursue it just a little bit further, of the budget that you allocate for agricultural programs and development, what percent is provided through the forms of foreign assistance that currently exist?

General AKINRINADE. Congressman, I am not sure that I got the question absolutely correctly, but I got the size of how much we allocate out of our resources to agriculture—for this year it was 14 percent, and in addition to that, we try as much as possible to push

a directorate for food growth and rural development which also, in its own right, brought about 8 percent of the budget. This is as far as we have gone now.

Mr. DASCHLE. If I could ask how much of that percentage, then, is provided in assistance from the multilateral agencies?

General AKINRINADE. There is about $500 million which is equivalent to about 25 percent, which is mainly for input. That is fertilizers, pesticides and herbicides from the World Bank, which is for direct imposition of some of this, and then the aids that we have for some of the projects that we have on the ground which are the agricultural development agencies, which are extension part of agriculture in some of the states in Nigeria. This has been funded by the World Bank, and we are getting some after that.

Mr. DASCHLE. Thank you very much. Thank you, Mr. Chairman.

Chairman LELAND. I thank the gentleman from South Dakota.

I have one final question for Dr. Okigbo. Dr. Okigbo, we have all heard in the committee meetings, and many of us have witnessed firsthand, how hard working and resourceful the African farmer is. Do African research institutions take advantage of these qualities and receive input from the farmers themselves when developing new agricultural techniques?

Mr. OKIGBO. Well, if I understand the question you raised, with respect to African research I think that one has to emphasize the fact that African agriculture research is very weak, not only with respect to its management, but also with respect to defining priorities and also the strategies that are most suitable. Therefore, we think that one area where we can make major advance is with respect to training African researchers in such a way that even if they are trained in the United States or other countries, they are in a position to also receive training on the job in developing countries in such a way that they may be working much directly on problems that are appropriate.

The other thing I feel which is important is that they should be well-trained in research management.

Chairman LELAND. Thank you very much. Unfortunately, due to our limited satellite time, we must now bring this hearing to a close. I'd like to thank our witnesses in Lagos, Nigeria, for providing us with very valuable insights regarding food production in Africa. Your input into this matter is vital to our understanding of how best to aid African development. Our discussion today has been very informative, and it is my hope that it will pave the way for more dialog between the United States and African nations.

I would also like to thank the U.S. Information Agency and their World Net branch for making today's teleconference possible. I am encouraged to see this new technology put to such good use, and I hope that we can use this service more for future programs. Finally, I would like to thank my colleagues for their participation in this hearing. This has been a very valuable hearing, and I just want to thank all of you for participating today. This has been most historic.

Thank you so much.

[Whereupon at 10 a.m. the select committee was adjourned subject to the call of the Chair.]

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